

Application No. 09/990,182
Amendment dated October 15, 2004
Reply to Office Action of June 15, 2004

REMARKS

Claims 1-12 and 51-59 are pending. Claims 60 is added herein. Accordingly, claims 1-12 and 51-60 are at issue.

The indication of allowable subject matter in claims 8-10 and 54-59 is noted with appreciation. Claim 8 is rewritten in independent form to include the limitations of its base claim 1 so that it should now be in condition for allowance. Claim 9 is rewritten in independent form to include the limitation of its base claim 1 so that it and claim 10 which depends therefrom should now be in condition for allowance. Claim 54 is rewritten in independent form to include the limitations of intervening dependent claim 53 and its base claim 1 so that it should now be in condition for allowance. Claim 55 is rewritten in independent form to include the limitations of its base claim 1 so that it and claims 56 and 57 which depend cognately therefrom should now be in condition for allowance. Claim 58 is rewritten in independent form to include the limitations of its base claim 1 so that it and claim 59 which depends therefrom should now be in condition for allowance.

FIG. 5B is filed herewith. FIG. 5B was filed in the provisional application from which the subject utility application claims priority rights. Further, FIG. 5B shows a typical V6 cylinder crankshaft. Accordingly, it is believed the addition of FIG. 5B does not add new matter to the present application since it was already included in the priority provisional application.

Claims 1, 2, 4, 6, 7, 11, 12, and 51-53 stand rejected under 35 U.S.C. §102(b) as anticipated by Miyamoto. Claims 3 and 5 stand rejected under 35 U.S.C. §103(a) as unpatentable over Miyamoto.

The rejections, as they may apply to the claims presented herein, are respectfully traversed.

The rolling apparatus of claim 1 includes a rolling arm having first and second rolling heads mounted thereon. A drive shifts one of the first and second rolling heads relative to the other rolling head between open and closed positions. In the closed position, rollers of the rolling heads apply pressure to the workpiece bearing for undertaking a rolling operation. As amended, claim 1 requires a backing portion of the arm disposed behind one of the drive for the one rolling head and the other rolling head. The backing portion is integral with the arm to provide robust mounting for the drive or the other rolling head for resisting reactive forces generated by the pressure-applying tool head rollers in the closed position during the rolling operation of the workpiece bearing. Miyamoto fails to disclose or suggest the backing portion of amended claim 1.

Miyamoto discloses a burnishing machine in which a burnishing head 5 having burnishing roller 8 is driven into engagement with a crankshaft W by hydraulic cylinder 6. As can be seen in FIGS. 1 and 2 of Miyamoto, the burnishing head 5 is guided in a slot opening formed between upper and lower arms with the cylinder 6 extending through a space in the arms. The cylinder 6 is attached to a thin, vertically extending plate pivotally mounted at 18 to a lower support with the cylinder extending rearwardly beyond the plate, as shown in FIG. 2. Accordingly, there is no arm backing portion behind the corresponding drive in Miyamoto, as required in claim 1. Further, there is no portion of either of Miyamoto's upper and lower arms that is disposed behind the cylinder 6. Accordingly, Miyamoto lack an integral backing portion of either one of its arms behind the drive cylinder 6. As such, it is apparent that the pivot plate mounting of the drive cylinder 6 is not akin to the robust mounting set forth in amended claim 1. Similarly, the roller head 3 is only fastened between the front ends of the upper and lower arms by bolts 3b. Accordingly, the rolling head 3 also lacks a backing portion of the arm that is

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disposed behind it. It is clear that the Miyamoto bolted-only roller head has a relatively weak mounting to the arms with respect to resisting applied rolling forces in comparison to the robust mounting provided by the backing portion that is integral with the rolling arm, recited in amended claim 1. Descriptions of the recited backing portion are set forth in the specification as several locations, namely: page 4, lines 24-29; page 18, line 24 - page 19, line 1; and page 29, lines 15-26. Accordingly, it is believed claim 1, and claims 2-7, 11, 12, 51-53, and 60 which cognately depend from claim 1, are allowable over Miyamoto.

Based on the foregoing, reconsideration and allowance of claims 1-12 and 51-59, and consideration and allowance of claim 60, are respectfully requested.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

By

A handwritten signature in black ink, appearing to read 'St-1' followed by a stylized flourish.

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Appendix